



RECEIVED

SEP 27 2001

TECH CENTER 1600/2900

Application No. 08/858,087

Attorney's Docket No. 000475-205

Page 2

IN THE CLAIMS:

Please replace Claim 16 as follows:

--16. (four times amended) A method of observing the effect of one or more candidate compounds on cells in a microfluidic device comprising:

- (a) providing a microfluidic device comprising a main flow path comprising an outlet, at least two inlet flow paths and a detection zone, wherein at least one inlet flow path intersects and merges with the main flow path at the detection zone, wherein the intersection of inlet flow paths with the main flow path is at an upstream angle of less than 90°;
- (b) applying into the microfluidic device at least one cell which flows into a first inlet flow path and a candidate compound to a second inlet flow path;
- (c) inducing flow of the cells and the candidate compound toward the outlet;
- (d) allowing the at least one cell to mix with the candidate compound in the detection zone; and
- (e) observing the effect of the candidate compound on the cells in the detection zone.--

Please add the following new claims 40 and 41:

--40. (New) The method of claim 16, wherein the intersection of inlet flow paths with the main flow path is at an upstream angle of less than 70°.

41

Application No. 08/858,087

Attorney's Docket No. 000475-205

Page 3

8

41. (New) The method of claim 16, wherein the intersection of inlet flow paths
with the main flow path is at an upstream angle of less than 50°.--

102
cont'd

45

10